HEALTH CARE SERVICE TRADE IN BIMSTEC REGION: A STUDY WITH REFERENCE TO WEST BENGAL

Submitted By

ABANTI AICH

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Under the supervision of

DR. KALLAL BANERJEE

Professor, School of Business Management

Swami Vivekananda University, West Bengal

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KOLKATA - 700121

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ABSTRACT

Introduction

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) has evolved into a strategic platform uniting South and Southeast Asian countries through economic, technical, and healthcare service collaborations. West Bengal, owing to its geographic and infrastructural strengths, stands out as a gateway in the healthcare service trade among BIMSTEC nations. The unique placement of the Siliguri Corridor (Chicken's neck) and Kolkata has turned the state into a medical hub, particularly attracting patients from Bangladesh, Bhutan, and Nepal. The post-pandemic era has accentuated the urgency and relevance of regional healthcare collaboration.

Background

BIMSTEC was established in 1997 to enhance regional cooperation among Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand. The group aims to foster regional integration across multiple sectors, including healthcare, through collaborative frameworks like the General Agreement on Trade in Services (GATS). West Bengal, with its high population density, developed medical institutions, and strategic proximity to neighbouring countries, holds considerable significance in enhancing healthcare access within the region. However, disparities in healthcare quality across West Bengal—particularly between urban and rural districts—highlight the urgent need for targeted policies and investments. Previous literature confirms the necessity of intra-regional cooperation for healthcare development, especially following the disruptions caused by COVID-19. There is also growing attention to healthcare services within BIMSTEC through policy instruments, academic research, and bibliometric analyses. Existing challenges include geographical inequalities, infrastructure

deficits, and cross-border regulatory misalignments, which need systematic addressable to unlock the full potential of healthcare trade.

Purpose of the Study

This research explores the dynamics of healthcare service trade within the BIMSTEC region with a special emphasis on West Bengal. It aims to analyse current healthcare capacities, assess the economic role of West Bengal in cross-border healthcare delivery, and identify opportunities and challenges to enhance regional collaboration. Additionally, it seeks to determine whether healthcare services can foster economic integration within the BIMSTEC region.

Methods

A mixed-methods approach was employed, integrating both quantitative and qualitative research. The study used multivariate statistical analysis, gravity modelling, and econometric tools such as RCA (Revealed Comparative Advantage), CAGR (Compound Annual Growth Rate), and the Hoekman Index to assess trade patterns, market access, and national treatment commitments among BIMSTEC countries. Primary data were collected using structured questionnaires targeting 300 stakeholders, including patients, doctors, nurses, administrators, and technicians from Kolkata and North Bengal. The survey utilizes structured quantitative methods including multiple-choice questions for demographic profiling, checkbox selections for identifying collaboration opportunities, and rating scales to measure the severity of challenges and effectiveness of proposed solutions. Qualitative data collection is incorporated through open-ended text areas that allow respondents to provide additional comments, suggestions, and detailed insights about their experiences with healthcare collaboration projects. The technical implementation features real-time data validation, systematic coding structure for all response categories, and automated data processing that generates statistical

analysis, demographic profiling, and evidence-based recommendations upon survey completion. Data validity and reliability were ensured through pilot testing, with Cronbach's Alpha of 0.79 and KMO value of 0.83. Factor analysis revealed three main variables—Healthcare Access, Infrastructure, and Policy Framework—explaining 72% of data variance. Secondary data were sourced from WTO, OECD, World Bank, EBOPS, government portals, and healthcare institutions. The study period covered 2017–2021. Research hypotheses tested significant disparities in healthcare services, potential correlations with infrastructure development, and West Bengal's role in BIMSTEC integration.

Results

The study confirmed significant disparities in healthcare services across BIMSTEC nations. Survey data revealed meaningful patterns in healthcare needs, with strong support for telemedicine and policy harmonization. Respondents identified regulatory disparities, infrastructure limitations, and cultural barriers as key challenges. Factor analysis yielded three major components—Healthcare Access, Infrastructure, and Policy Framework—explaining 72% of the data variance. Bangladesh exhibited the highest healthcare export growth (SGR of 80%, CAGR of 12%), while Sri Lanka showed severe decline (SGR -95%, CAGR -55%). India displayed balanced trade growth, with high RCA values in specialized services like medical and paramedical services (codes 1Ah, 1Aj). Thailand dominated in other healthcare service categories (8A, 8B, 8C, 8D). Cluster analysis of Hoekman Index scores placed India and Thailand in a high-commitment group, while countries like Bhutan, Myanmar, and Sri Lanka showed zero commitments. The gravity model showed GDP, proximity, and language as strong trade predictors; however, healthcare infrastructure, regulatory harmonization, and technology advancement (H2) did not show statistically significant correlation with trade potential.

Survey results revealed that 90% of respondents recognized modern medical treatment as the most promising area for collaboration. SWOT analysis identified West Bengal's strengths in medical infrastructure and skilled workforce, while weaknesses included urban-rural disparities and policy misalignments. Opportunities involved digital healthcare, medical tourism, and regional policy harmonization. Threats consisted of geopolitical instability, lack of policy coordination, and insufficient funding.

India and Thailand emerged as leaders in healthcare trade within BIMSTEC, showing high RCA and Hoekman Index scores, especially in specialized services. India displayed strong commitments under GATS Modes 2 and 3, while Nepal excelled under Mode 1. However, countries like Bhutan, Myanmar, and Sri Lanka displayed negligible commitment, resulting in low integration levels.

The gravity model affirmed significant positive relationships between trade volumes and GDP, common language, and adjacency. However, the Hoekman Index did not show statistically significant correlation with trade potential, leading to the rejection of Hypothesis H2.

- **Trade Performance:** India and Bangladesh demonstrated positive Compound Annual Growth Rates (CAGR) in healthcare trade, while Sri Lanka faced significant declines. India showed strong RCA in medical and dental services (1Ah, 1Aj), and Thailand led in hospital services (8A–8D).
- **Commitment Levels:** Hoekman Index analysis showed Thailand and India leading in healthcare liberalization. Nepal had moderate commitments, whereas Bangladesh, Sri Lanka, Myanmar, and Bhutan showed limited engagement.
- **Clustering & Gravity Model:** Cluster analysis grouped India and Thailand as high-performing countries. The gravitational model analysis reveals that India-BIMSTEC trade flows are strongly explained (80% of variation) by economic size,

geographic distance, regional trade agreements, and common language, with larger economies trading more extensively, distance reducing trade intensity, and shared languages or trade agreements significantly facilitating bilateral commerce.

- **Survey Findings:** Key collaboration opportunities included telemedicine (26%), modern treatment (29%), and medical tourism (24%). Major barriers were regulatory differences (28.3%), infrastructure gaps (21%), and cultural/language barriers (20%). Recommendations emphasized standardized policies (52%), investment in regional centres (48%), and technology integration (33%). Healthcare preferences vary significantly by age, profession, and location, with younger respondents favouring technology (AI, IOT etc.) while older ones prioritize medical tourism.
- **Policy Prescriptions:** To enhance healthcare service trade in the BIMSTEC region, policies must focus on improving market access by reducing regulatory barriers, simplifying visa procedures for patients and medical professionals, and encouraging foreign direct investment. National treatment should be ensured, allowing foreign healthcare providers the same rights as domestic ones. Additional policy recommendations include harmonizing healthcare standards, mutual recognition of medical qualifications, facilitating cross-border telemedicine, and establishing regional health insurance frameworks. Addressing infrastructure gaps, regulatory misalignment, and workforce disparities is essential to build an equitable and efficient regional healthcare service trade network.

Outcome

The study concludes that healthcare trade is a vital tool for regional economic integration within BIMSTEC. West Bengal's geographic location, infrastructure, and skilled professionals make it a key player. The state has demonstrated considerable potential in providing medical services, attracting international patients, and enabling telemedicine-based cross-border collaboration. The acceptance of hypotheses H1, H3, and H4—validated through empirical data—confirms disparities in service access, West Bengal's economic importance, and the existence of considerable scope and challenges for collaboration. However, H2 was rejected, as there was no strong statistical evidence linking healthcare service potential to infrastructure or regulatory frameworks alone.

Policy recommendations include improving market access, mutual recognition of medical qualifications, simplifying visa procedures for patients and professionals, and increasing FDI in healthcare. These must be supported by regional policy harmonization, telemedicine regulations, investment in medical education, and integration of traditional medicine practices. For the Northeast region, investments in AI-based diagnostics, regional centres, and cross-border medical referrals can further enhance healthcare trade. Government schemes such as Ayushman Bharat and PM-Devine have laid strong groundwork, yet require alignment with BIMSTEC goals.

Ultimately, a unified governance structure rooted in fair access, mutual trust, and regulatory consistency is essential. With adequate infrastructure, policy support, and stakeholder collaboration, West Bengal can emerge as a central healthcare hub not only for India but for the entire BIMSTEC region, ensuring sustainable health outcomes and regional economic prosperity.

Conclusion

The study concludes that healthcare service trade can significantly boost economic integration among BIMSTEC countries. West Bengal's geographic proximity, healthcare infrastructure, and policy readiness make it a natural hub for regional cooperation. Nevertheless, disparities in service standards and access remain a concern. Policy prescriptions include streamlining visa processes, mutual recognition of qualifications, regional health insurance schemes, and infrastructure investments.

Healthcare collaboration must be guided by fair market access, national treatment, and regionally aligned health strategies. Such integration not only bolsters economic development but also addresses public health challenges, especially in underrepresented and underserved communities.